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ABSTRACT

Standardized curricula are provided for two courses for the secondary vocational education program in Mississippi: brick, block, and stonemasonry I and II. The six units in brick, block, and stonemasonry I are as follows: orientation and leadership activities; safety; basic tools and equipment; masonry units; mortar; and wall layout. Brick, block, and masonry II consists of six units: safety; power tools and equipment; wall layout; anchors and reinforcement; basic plan reading and estimating; and stonemasonry. Each unit consists of these components: objectives, with core/essential objectives indicated; suggested instructional practices; list of suggested resources; list of evaluation and suggested minimum performance standards, with core/essential objectives indicated; and performance record, with core/essential objectives indicated. A checklist for each course combining all unit performance standards into a single list is included. (YLB)

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STANDARDIZED CURRICULUM

FOR

BRICK, BLOCK, AND STONEMASONRY

MISSISSIPPI DEPARTMENT OF EDUCATION

OFFICE OF VOCATIONAL, TECHNICAL

AND ADULT EDUCATION

June 1989

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1989

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FOREWORD

This volume is intended to be used in the State of Mississippi as a mechanism for standardizing vocational education course titles and core contents. The need for standardization of curricula was triggered by provisions in the Educational Reform Act of 1982 which mandated:

-- elimination of nearly all currently existing curriculum requirements and development of new curriculum content that is "properly sequenced" and "coordinated";

-- steps to ensure that students master one level of course work before being advanced to the next level and that progression is properly sequenced;

-- a criterion-referenced, state-wide testing program that is built upon an identified set of "basic skills" keyed to student performance in grades 3, 5, 8, and 11;

-- revised graduation requirements that take into account student performance on the basic skills and also on a test of "functional literacy skills"; and

-- a system of accrediting schools that takes into account the performance of districts, schools, and students.

In addition to the mandates of the Educational Reform Act, the Strategic Plan for Vocational and Technical Education in Mississippi also calls for improving the quality of vocational and technical education through the standardization of curricula and the articulation of secondary and postsecondary programs.

Both of these mandates were further reinforced by legislation passed in 1986 which called for the establishment of state-wide "guidelines and procedures for managing an instructional program in the public schools." This legislation calls for instructional management plans containing the following components:

1. a written list of learning objectives for every course for which academic credit is given on students' transcripts (state specified core objectives must be included);

2. suggested instructional practices and resources for the learning objectives;

3. standards for student performance for each learning objective; and

4. systematic procedures for evaluating student performance on the learning objectives.

Specific local district actions regarding the state-wide instructional management plan are also required, namely:

1. The objectives contained in this document are common to all programs in the state. Core objectives are designated with an asterisk. The local district is encouraged to add additional objectives to this listing to meet local needs of students and employers.

2. The local school board must officially adopt the learning objectives as the district's curricula.

3. Pass/fail policies must be based on mastery of learning objectives.

4. Student performance on the learning objectives must be systematically evaluated at least once during the school year.

5. During the school year, records of individual student performance must indicate whether or not the objectives have been mastered. The record must indicate mastery status for each of the objectives tested in the Basic Skills Assessment Program (including functional literacy skills) and must be permanently maintained on all students who do <u>not</u> master the basic and functional literacy skills prior to being tested on them.

6. Each year, information about student performance on learning objectives must be reviewed. Those objectives which students are not mastering must be identified, and a plan must be developed for improving student performance on those objectives.

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BRICK, BLOCK, AND STONEMASONRY I

Developed by

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BRICK, BLOCK, AND STONEMASONRY I

Unit No.	Title
1	Orientation and Leadership Activities
2	Safety
3	Basic Tools and Equipment
4	Masonry Units
5	Mortar
6	Wall Layout

COURSE: Brick, Block, and Stonemasonry I

Unit 1: Orientation and Leadership Activities (5 days)

Objectives: Upon completion of this unit, the student will:

*1. Identify terms and definitions associated with masonry.
*2. Identify characteristics of a good bricklayer.
*3. Identify major skills involved in bricklaying.
4. Identify student organizations related to bricklaying.

*Indicates core/essential objectives

Suggested Instructional Practices:

Lecture and discussion
Laboratory demonstration and practice

Suggested Resources:

Primary Sources: Turcotte, Raymond J. Bricklaying Curriculum: Basic Core. (Revised by Hendrix, Laborn J.) Stillwater, Oklahoma: The Associated General Contractors of America and Oklahoma State Department of Vocational and Technical Education. 1984.

Turcotte, Raymond J. Bricklaying Curriculum: Principles of Bricklaying. (Revised by Hendrix, Laborn J.) Stillwater, Oklahoma: The Associated General Contractors of America and Oklahoma State Department of Vocational and Technical Education. 1984.

Turcotte, Raymond J. Bricklaying Curriculum: Advanced Bricklaying Techniques. (Revised by Hendrix, Laborn J.) Stillwater, Oklahoma: The Associated General Contractors of America and Oklahoma State Department of Vocational and Technical Education. 1984.

Evaluation and Suggested Minimum Performance Standards:

*Objective 1: The student will identify four terms and definitions associated with masonry.
*Objective 2: The student will identify six characteristics of a good bricklayer.
*Objective 3: The student will identify five major skills involved in bricklaying.

Objective 4: The student will identify the student organization related to bricklaying.

*Indicates core/essential objectives

Performance Record: Place a check by each objective the student achieved:

_____*1. Identified terms and definitions associated with masonry.
_____*2. Identified characteristics of a good bricklayer.
_____*3. Identified major skills involved in bricklaying.
_____ 4. Identified student organizations related to bricklaying.

*Indicates core/essential objectives

COURSE: Brick, Block, and Stonemasonry I

Unit 2: Safety (3 days)

Objectives: Upon completion of this unit, the student will:

*1. Match terms associated with safety to their correct definitions.
*2. Identify personal safety rules.
*3. Identify correct procedures for lifting heavy objects.
*4. Identify reasons for practicing job safety.
*5. Lift a heavy object using the correct procedure.

*Indicates core/essential objectives

Suggested Instructional Procedures:

Lecture and discussion
Laboratory demonstration and practice

Suggested Resources:

Primary Sources: Turcotte, Raymond J. Bricklaying Curriculum: Basic Core. (Revised by Hendrix, Laborn J.) Stillwater, Oklahoma: The Associated General Contractors of America and Oklahoma State Department of Vocational and Technical Education. 1984.

Turcotte, Raymond J. Bricklaying Curriculum: Principles of Bricklaying. (Revised by Hendrix, Laborn J.) Stillwater, Oklahoma: The Associated General Contractors of America and Oklahoma State Department of Vocational and Technical Education. 1984.

Turcotte, Raymond J. Bricklaying Curriculum: Advanced Bricklaying Techniques. (Revised by Hendrix, Laborn J.) Stillwater, Oklahoma: The Associated General Contractors of America and Oklahoma State Department of Vocational and Technical Education. 1984.

Evaluation and Suggested Minimum Performance Standards:

*Objective 1: The student will match 11 terms associated with safety to their correct definitions.
*Objective 2: The student will identify five personal safety rules.

*Objective 3: The student will identify five correct procedures for lifting heavy objects.
*Objective 4: The student will identify five reasons for practicing job safety.
*Objective 5: The student will lift a heavy object using the correct procedure.

*Indicates core/essential objectives

Performance Record: Place a check by each objective the student achieved:

_____*1. Matched terms associated with safety to their correct definitions.
_____*2. Identified personal safety rules.
_____*3. Identified correct procedures for lifting heavy objects.
_____*4. Identified reasons for practicing job safety.
_____*5. Lifted a heavy object using the correct procedure.

*Indicates core/essential objectives

COURSE: Brick, Block and Stonemasonry I

Unit 3: Basic Tools and Equipment (33 days)

Objectives: Upon completion of this unit, the student will:

*1. Match terms associated with hand tools to their correct definitions.
*2. Distinguish between modular spacing rule and standard brick spacing rule.
*3. Identify basic tools and proper use.
*4. Identify and describe the correct way to hold a brick trowel.
*5. Measure, mark, and cut brick and block to specifications.
*6. List basic rules concerning care of the level.
*7. Use a framing square to lay out a wall corner to specifications.

*Indicates core/essential objectives

Suggested Instructional Procedures:

Lecture and discussion
Laboratory demonstration and practice

Suggested Resources:

Primary Sources: Turcotte, Raymond J. Bricklaying Curriculum: Basic Core. (Revised by Hendrix, Laborn J.) Stillwater, Oklahoma: The Associated General Contractors of America and Oklahoma State Department of Vocational and Technical Education. 1984.

Turcotte, Raymond J. Bricklaying Curriculum: Principles of Bricklaying. (Revised by Hendrix, Laborn J.) Stillwater, Oklahoma: The Associated General Contractors of America and Oklahoma State Department of Vocational and Technical Education. 1984.

Turcotte, Raymond J. Bricklaying Curriculum: Advanced Bricklaying Techniques. (Revised by Hendrix, Laborn J.) Stillwater, Oklahoma: The Associated General Contractors of America and Oklahoma State Department of Vocational and Technical Education. 1984.

Evaluation and Suggested Minimum Performance Standards:

*Objective 1: The student will match seven terms associated with hand tools to their correct definitions.

*Objective 2: The student will distinguish between modular spacing rule and standard brick spacing rule.
*Objective 3: The student will identify the six basic tools and proper use of each.
*Objective 4: The student will identify and describe the correct way to hold a brick trowel.
*Objective 5: The student will measure, mark, and cut brick and block to specifications.
*Objective 6: The student will list four basic rules concerning care of the level.
*Objective 7: The student will use a framing square to lay out a wall corner to specifications.

*Indicates core/essential objectives

Performance Record: Place a check by each objective the student achieved:

_____*1. Matched terms associated with hand tools to their correct definitions.
_____*2. Distinguished between modular spacing rule and standard brick spacing rule.
_____*3. Identified basic tools and proper use of each.
_____*4. Identified and described the correct way to hold a brick trowel.
_____*5. Measured, marked, and cut brick and block to specifications.
_____*6. Listed basic rules concerning care of the level.
_____*7. Used a framing square to lay out a wall corner to specifications.

*Indicates core/essential objectives

COURSE: Brick, Block, and Stonemasonry I

Unit 4: Masonry Units (20 days)

Objectives: Upon completion of this unit, the student will:

1. Match terms associated with masonry units to their correct definitions.
2. Name types of brick.
3. Label parts of a brick.
*4. Identify brick positions as they appear in a wall.
*5. Lay out a brick wall using dry bond method to specifications.

*Indicates core/essential objectives

Suggested Instructional Procedures:

Lecture and discussion
Laboratory demonstration and practice

Suggested Resources:

Primary Sources: Turcotte, Raymond J. Bricklaying Curriculum: Basic Core. (Revised by Hendrix, Laborn J.) Stillwater, Oklahoma: The Associated General Contractors of America and Oklahoma State Department of Vocational and Technical Education. 1984.

Turcotte, Raymond J. Bricklaying Curriculum: Principles of Bricklaying. (Revised by Hendrix, Laborn J.) Stillwater, Oklahoma: The Associated General Contractors of America and Oklahoma State Department of Vocational and Technical Education. 1984.

Turcotte, Raymond J. Bricklaying Curriculum: Advanced Bricklaying Techniques. (Revised by Hendrix, Laborn J.) Stillwater, Oklahoma: The Associated General Contractors of America and Oklahoma State Department of Vocational and Technical Education. 1984.

Evaluation and Suggested Minimum Performance Standards:

Objective 1: The student will match seven terms associated with masonry units to their correct definitions.
Objective 2: The student will name two types of brick.
Objective 3: The student will label three parts of a brick.
*Objective 4: The student will identify four brick positions as they appear in a wall.

*Objective 5: The student will lay out a brick wall using dry bond method to specifications.

*Indicates core/essential objectives

Performance Record: Place a check by each objective the student achieved:

_____ 1. Matched terms associated with masonry units to their correct definitions.
_____ 2. Named types of brick.
_____ 3. Labeled parts of a brick.
_____ *4. Identified brick positions as they appear in a wall.
_____ *5. Laid out a brick wall using dry bond method to specifications.

*Indicates core/essential objectives

COURSE: Brick, Block, and Stonemasonry I

Unit 5: Mortar (20 days)

Objectives: Upon completion of this unit, the student will:

1. Match terms associated with mortar to their correct definitions.
2. List ingredients used in mortar.
*3. List factors to consider when mixing mortar.
*4. List purposes of mortar.
*5. List factors that affect mortar consistency.
*6. Arrange in order steps used to mix mortar by hand.
*7. Arrange in order steps for using a mechanical mixer to mix mortar.
*8. Mix a batch of mortar by hand to specifications.
*9. Mix a batch of mortar using a mechanical mixer to specifications.
*10. Spread mortar to specifications.

*Indicates core/essential objectives

Suggested Instructional Procedures:

Lecture and discussion
Laboratory demonstration and practice

Suggested Resources:

Primary Sources: Turcotte, Raymond J. Bricklaying Curriculum: Basic Core. (Revised by Hendrix, Laborn J.) Stillwater, Oklahoma: The Associated General Contractors of America and Oklahoma State Department of Vocational and Technical Education. 1984.

Turcotte, Raymond J. Bricklaying Curriculum: Principles of Bricklaying. (Revised by Hendrix, Laborn J.) Stillwater, Oklahoma: The Associated General Contractors of America and Oklahoma State Department of Vocational and Technical Education. 1984.

Turcotte, Raymond J. Bricklaying Curriculum: Advanced Bricklaying Techniques. (Revised by Hendrix, Laborn J.) Stillwater, Oklahoma: The Associated General Contractors of America and Oklahoma State Department of Vocational and Technical Education. 1984.

Evaluation and Suggested Minimum Performance Standards:

Objective 1: The student will match six terms associated with mortar to their correct definitions.
Objective 2: The student will list three ingredients used in mortar.
*Objective 3: The student will list three factors to consider when mixing mortar.
*Objective 4: The student will list two purposes of mortar.
*Objective 5: The student will list three factors that affect mortar consistency.
*Objective 6: The student will arrange in order five steps used to mix mortar by hand.
*Objective 7: The student will arrange in order five steps for using a mechanical mixer to mix mortar.
*Objective 8: The student will mix a batch of mortar by hand to specifications.
*Objective 9: The student will mix a batch of mortar using a mechanical mixer to specifications.
*Objective 10: The student will spread mortar to specifications.

*Indicates core/essential objectives

Performance Record: Place a check by each objective the student achieved:

_____ 1. Matched terms associated with mortar to their correct definitions.
_____ 2. Listed ingredients used in mortar.
_____ *3. Listed factors to consider when mixing mortar.
_____ *4. Listed purposes of mortar.
_____ *5. Listed factors that affect mortar consistency.
_____ *6. Arranged in order steps used to mix mortar by hand.
_____ *7. Arranged in order steps for using a mechanical mixer to mix mortar.
_____ *8. Mixed a batch of mortar by hand to specifications.
_____ *9. Mixed a batch of mortar using a mechanical mixer to specifications.
_____ *10. Spread mortar to specifications.

*Indicates core/essential objectives

COURSE: Brick, Block, and Stonemasonry I

Unit 6: Wall Layout (50 days)

Objectives: Upon completion of this unit, the student will:

*1. Match terms associated with wall layout to their correct definitions.
*2. List purposes of wall layout.
*3. List in order the procedures for laying out a wall.
4. List purposes of bonds.
5. List types of wall bonds.
*6. Lay out a wall using the dry bond method to specifications.
*7. Identify types of leads.
*8. Build a lead to specifications.
*9. Lay up a wall between established leads to specifications.

*Indicates core/essential objectives

Suggested Instructional Procedures:

Lecture and discussion
Laboratory demonstration and practice

Suggested Resources:

Primary Sources: Turcotte, Raymond J. Bricklaying Curriculum: Basic Core. (Revised by Hendrix, Laborn J.) Stillwater, Oklahoma: The Associated General Contractors of America and Oklahoma State Department of Vocational and Technical Education. 1984.

Turcotte, Raymond J. Bricklaying Curriculum: Principles of Bricklaying. (Revised by Hendrix, Laborn J.) Stillwater, Oklahoma: The Associated General Contractors of America and Oklahoma State Department of Vocational and Technical Education. 1984.

Turcotte, Raymond J. Bricklaying Curriculum: Advanced Bricklaying Techniques. (Revised by Hendrix, Laborn J.) Stillwater, Oklahoma: The Associated General Contractors of America and Oklahoma State Department of Vocational and Technical Education. 1984.

Evaluation and Suggested Minimum Performance Standards:

*Objective 1: The student will match ten terms associated with wall layout to their correct definitions.

*Objective 2: The student will list two purposes of wall layout.
*Objective 3: The student will list in order the procedures for laying out a wall.
Objective 4: The student will list two purposes of bonds.
Objective 5: The student will list four types of wall bonds.
*Objective 6: The student will lay out a wall using the dry bond method to specifications.
*Objective 7: The student will identify two types of leads.
*Objective 8: The student will build a lead to specifications.
*Objective 9: The student will lay up a wall between established leads to specifications.

*Indicates core/essential objectives

Performance Record: Place a check by each objective the student achieved:

_____*1. Matched terms associated with wall layout to their correct definitions.
_____*2. Listed purposes of wall layout.
_____*3. Listed in order the procedures for laying out a wall.
_____ 4. Listed purposes of bonds.
_____ 5. Listed types of wall bonds.
_____*6. Laid out a wall using the dry bond method to specifications.
_____*7. Identified types of leads.
_____*8. Built a lead to specifications.
_____*9. Laid up a wall between established leads to specifications.

*Indicates core/essential objectives

BRICK, BLOCK, AND STONEMASONRY II

Developed by

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Nolan Henderson, Greenwood
Henry Middleton, Vicksburg
Toney Richards, Greenville

BRICK, BLOCK AND STONEMASONRY II

Unit No.	Title
1	Safety
2	Power Tools and Equipment
3	Wall Layout
4	Anchors and Reinforcement
5	Basic Plan Reading and Estimating
6	Stonemasonry

COURSE: Brick, Block, and Stonemasonry II

Unit 1: Safety (4 days)

Objectives: Upon completion of this unit, the student will:

*1. Match terms associated with safety.
*2. Identify job safety rules.
*3. Identify correct procedures for lifting heavy objects.

*Indicates core/essential objectives

Suggested Instructional Procedures:

Lecture and discussion
Laboratory demonstration and practice

Suggested Resources:

Primary Sources: Turcotte, Raymond J. Bricklaying Curriculum: Basic Core. (Revised by Hendrix, Laborn J.) Stillwater, Oklahoma: The Associated General Contractors of America and Oklahoma State Department of Vocational and Technical Education. 1984.

Turcotte, Raymond J. Bricklaying Curriculum: Principles of Bricklaying. (Revised by Hendrix, Laborn J.) Stillwater, Oklahoma: The Associated General Contractors of America and Oklahoma State Department of Vocational and Technical Education. 1984.

Turcotte, Raymond J. Bricklaying Curriculum: Advanced Bricklaying Techniques. (Revised by Hendrix, Laborn J.) Stillwater, Oklahoma: The Associated General Contractors of America and Oklahoma State Department of Vocational and Technical Education. 1984.

Evaluation and Suggested Minimum Performance Standards:

*Objective 1: The student will match eight terms associated with safety.
*Objective 2: The student will identify seven job safety rules.
*Objective 3: The student will identify four correct procedures for lifting heavy objects.

*Indicates core/essential objectives

Performance Record: Place a check by each objective the student achieved:

_____*1. Matched terms associated with safety.
_____*2. Identified job safety rules.
_____*3. Identified correct procedures for lifting heavy objects.

*Indicates core/essential objectives

COURSE: Brick, Block, and Stonemasonry II

Unit 2: Power Tools and Equipment (25 days)

Objectives: Upon completion of this unit, the student will:

*1. Match terms associated with power tools to their correct definitions.
*2. Identify power tools.
*3. Identify parts of the masonry saw.
*4. Identify types of cutting blades used on masonry saws.
*5. List factors in caring for the masonry saw.
*6. List safety rules for operating the masonry saw.
*7. Measure and cut bricks and blocks with the masonry saw to specifications.
8. List miscellaneous equipment related to bricklaying.
9. List types of scaffolds.
*10. List parts of a stationary scaffold.
*11. List safety rules pertaining to scaffolds.
*12. Erect a scaffold to specifications.

*Indicates core/essential objectives

Suggested Instructional Procedures:

Lecture and discussion
Laboratory demonstration and practice

Suggested Resources:

Primary Sources: Turcotte, Raymond J. Bricklaying Curriculum: Basic Core. (Revised by Hendrix, Laborn J.) Stillwater, Oklahoma: The Associated General Contractors of America and Oklahoma State Department of Vocational and Technical Education. 1984.

Turcotte, Raymond J. Bricklaying Curriculum: Principles of Bricklaying. (Revised by Hendrix, Laborn J.) Stillwater, Oklahoma: The Associated General Contractors of America and Oklahoma State Department of Vocational and Technical Education. 1984.

Turcotte, Raymond J. Bricklaying Curriculum: Advanced Bricklaying Techniques. (Revised by Hendrix, Laborn J.) Stillwater, Oklahoma: The Associated General Contractors of America and Oklahoma State Department of Vocational and Technical Education. 1984.

Evaluation and Suggested Minimum Performance Standards:

*Objective 1: The student will match four terms associated with power tools to their correct definitions.
*Objective 2: The student will identify four power tools.
*Objective 3: The student will identify six parts of the masonry saw.
*Objective 4: The student will identify two types of cutting blades used on masonry saws.
*Objective 5: The student will list three factors in caring for the masonry saw.
*Objective 6: The student will list five safety rules for operating the masonry saw.
*Objective 7: The student will measure and cut bricks and blocks with the masonry saw to specifications.
Objective 8: The student will list five pieces of miscellaneous equipment related to bricklaying.
Objective 9: The student will list two types of scaffolds.
*Objective 10: The student will list three parts of a stationary scaffold.
*Objective 11: The student will list four safety rules pertaining to scaffolds.
*Objective 12: The student will erect a scaffold to specifications.

*Indicates core/essential objectives

Performance Record: Place a check by each objective the student achieved:

_____ *1. Matched terms associated with power tools to their correct definitions.
_____ *2. Identified power tools.
_____ *3. Identified parts of the masonry saw.
_____ *4. Identified types of cutting blades used on masonry saws.
_____ *5. Listed factors in caring for the masonry saw.
_____ *6. Listed safety rules for operating the masonry saw.
_____ *7. Measured and cut bricks and blocks with the masonry saw to specifications.
_____ 8. Listed miscellaneous equipment related to bricklaying.
_____ 9. Listed types of scaffolds.
_____ *10. Listed parts of a stationary scaffold.
_____ *11. Listed safety rules pertaining to scaffolds.
_____ *12. Erected a scaffold to specifications.

*Indicates core/essential objectives

COURSE: Brick, Block, and Stonemasonry II

Unit 3: Wall Layout (43 days)

Objectives: Upon completion of this unit, the student will:

*1. Match terms associated with wall layout.
*2. Distinguish between load-bearing and non-loadbearing walls.
3. State the purpose of through-wall bonding.
4. List types of through-wall bonding.
*5. List the purposes of brick and block leads.
*6. List methods of layout.
*7. Build a block lead to specifications.
*8. Lay up a block wall using steel tape bonding to specifications.

*Indicates core/essential objectives

Suggested Instructional Procedures:

Lecture and discussion
Laboratory demonstration and practice

Suggested Resources:

Primary Sources: Turcotte, Raymond J. Bricklaying Curriculum: Basic Core. (Revised by Hendrix, Laborn J.) Stillwater, Oklahoma: The Associated General Contractors of America and Oklahoma State Department of Vocational and Technical Education. 1984.

Turcotte, Raymond J. Bricklaying Curriculum: Principles of Bricklaying. (Revised by Hendrix, Laborn J.) Stillwater, Oklahoma: The Associated General Contractors of America and Oklahoma State Department of Vocational and Technical Education. 1984.

Turcotte, Raymond J. Bricklaying Curriculum: Advanced Bricklaying Techniques. (Revised by Hendrix, Laborn J.) Stillwater, Oklahoma: The Associated General Contractors of America and Oklahoma State Department of Vocational and Technical Education. 1984.

Evaluation and Suggested Minimum Performance Standards:

*Objective 1: The student will match nine terms associated with wall layout.
*Objective 2: The student will distinguish between load-bearing and non-load-bearing walls.

Objective 3: The student will state the purpose of through-wall bonding.
Objective 4: The student will list two types of through-wall bonding.
*Objective 5: The student will list two purposes of brick and block leads.
*Objective 6: The student will list two methods of layout.
*Objective 7: The student will build a block lead to specifications.
*Objective 8: The student will lay up a block wall using steel tape bonding to specifications.

*Indicates core/essential objectives

Performance Record: Place a check by each objective the student achieved:

_____*1. Matched terms associated with wall layout.
_____*2. Distinguished between load-bearing and non-load-bearing walls.
_____ 3. Stated the purpose of through-wall bonding.
_____ 4. Listed types of through-wall bonding.
_____*5. Listed the purposes of brick and block leads.
_____*6. Listed methods of layout.
_____*7. Built a block lead to specifications.
_____*8. Laid up a block wall using steel tape bonding to specifications.

*Indicates core/essential objectives

COURSE: Brick, Block, and Stonemasonry II

Unit 4: Anchors and Reinforcement (35 days)

Objectives: Upon completion of this unit, the student will:

*1. Match terms associated with anchors and reinforcement to their correct definitions.
*2. List types of anchors and reinforcement used with masonry units.
*3. List reasons for using anchors and reinforcement in a masonry wall.
*4. List advantages of metal ties.
*5. Describe placement for metal ties.
*6. Install wall ties horizontally and vertically to specifications.
*7. Install joint reinforcement in block wall to specifications.

*Indicates core/essential objectives

Suggested Instructional Procedures:

Lecture and discussion
Laboratory demonstration and practice

Suggested Resources:

Primary Sources: Turcotte, Raymond J. Bricklaying Curriculum: Basic Core. (Revised by Hendrix, Laborn J.) Stillwater, Oklahoma: The Associated General Contractors of America and Oklahoma State Department of Vocational and Technical Education. 1984.

Turcotte, Raymond J. Bricklaying Curriculum: Principles of Bricklaying. (Revised by Hendrix, Laborn J.) Stillwater, Oklahoma: The Associated General Contractors of America and Oklahoma State Department of Vocational and Technical Education. 1984.

Turcotte, Raymond J. Bricklaying Curriculum: Advanced Bricklaying Techniques. (Revised by Hendrix, Laborn J.) Stillwater, Oklahoma: The Associated General Contractors of America and Oklahoma State Department of Vocational and Technical Education. 1984.

Evaluation and Suggested Minimum Performance Standards:

*Objective 1: The student will match eight terms associated with anchors and reinforcement to their correct definitions.
*Objective 2: The student will list five types of anchors and reinforcement used with masonry units.
*Objective 3: The student will list three reasons for using anchors and reinforcement in a masonry wall.
*Objective 4: The student will list three advantages of metal ties.
*Objective 5: The student will describe placement for metal ties.
*Objective 6: The student will install wall ties horizontally and vertically to specifications.
*Objective 7: The student will install joint reinforcement in block wall to specifications.

*Indicates core/essential objectives

Performance Record: Place a check by each objective the student achieved:

_____*1. Matched terms associated with anchors and reinforcement to their correct definitions.
_____*2. Listed types of anchors and reinforcement used with masonry units.
_____*3. Listed reasons for using anchors and reinforcement in a masonry wall.
_____*4. Listed advantages of metal ties.
_____*5. Described placement for metal ties.
_____*6. Installed wall ties horizontally and vertically to specifications.
_____*7. Installed joint reinforcement in block wall to specifications.

*Indicates core/essential objectives

COURSE: Brick, Block, and Stonemasonry II

Unit 5: Basic Plan Reading and Estimating (15 days)

Objectives: Upon completion of this unit, the student will:

*1. Match terms associated with plan reading to their correct definitions.
*2. Label types of lines included in the alphabet of lines.
3. Match types of lines to their correct descriptions.
*4. Label drawing symbols.
*5. Match abbreviations commonly used on plans to their correct names.
*6. Select from a list common scales to which plans are drawn.
*7. Match terms associated with estimating to their correct definitions.
8. List rule-of-thumb guidelines used by the brick-layer when estimating materials.
*9. Estimate material for a specific brick job to specifications.
*10. Estimate material for a specific block job to specifications.

*Indicates core/essential objectives

Suggested Instructional Procedures:

Lecture and discussion
Laboratory demonstration and practice

Suggested Resources:

Primary Sources: Turcotte, Raymond J. Bricklaying Curriculum: Basic Core. (Revised by Hendrix, Laborn J.) Stillwater, Oklahoma: The Associated General Contractors of America and Oklahoma State Department of Vocational and Technical Education. 1984.

Turcotte, Raymond J. Bricklaying Curriculum: Principles of Bricklaying. (Revised by Hendrix, Laborn J.) Stillwater, Oklahoma: The Associated General Contractors of America and Oklahoma State Department of Vocational and Technical Education. 1984.

Turcotte, Raymond J. Bricklaying Curriculum: Advanced Bricklaying Techniques. (Revised by Hendrix, Laborn J.) Stillwater, Oklahoma: The Associated General Contractors of America and Oklahoma State Department of Vocational and Technical Education. 1984.

Evaluation and Suggested Minimum Performance Standards:

*Objective 1: The student will match ten terms associated with plan reading to their correct definitions.
*Objective 2: The student will label five types of lines included in the alphabet of lines.
Objective 3: The student will match five types of lines to their correct descriptions.
*Objective 4: The student will label five drawing symbols.
*Objective 5: The student will match ten abbreviations commonly used on plans to their correct names.
*Objective 6: The student will select from a list two common scales to which plans are drawn.
*Objective 7: The student will match five terms associated with estimating to their correct definitions.
Objective 8: The student will list six rule-of-thumb guidelines used by the bricklayer when estimating materials.
*Objective 9: The student will estimate material for a specific brick job to specifications.
*Objective 10: The student will estimate material for a specific block job to specifications.

*Indicates core/essential objectives

Performance Record: Place a check by each objective the student achieved:

_____*1. Matched terms associated with plan reading to their correct definitions.
_____*2. Labeled types of lines included in the alphabet of lines.
_____ 3. Matched types of lines to their correct descriptions.
_____*4. Labeled drawing symbols.
_____*5. Matched abbreviations commonly used on plans to their correct names.
_____*6. Selected from a list common scales to which plans are drawn.
_____*7. Matched terms associated with estimating to their correct definitions.
_____ 8. Listed rule-of-thumb guidelines used by the brick-layer when estimating materials.
_____*9. Estimated material for a specific brick job to specifications.
____*10. Estimated material for a specific block job to specifications.

*Indicates core/essential objectives

COURSE: Brick, Block, and Stonemasonry II

Unit 6: Stonemasonry (5 days)

Objectives: Upon completion of this unit, the student will:

1. Match terms associated with stonemasonry.
2. List reasons for using rough stone.
3. List types of rough stone.

*Indicates core/essential objectives

Suggested Instructional Procedures:

Lecture and discussion
Laboratory demonstration and practice

Suggested Resources:

Primary Sources: Turcotte, Raymond J. Bricklaying Curriculum: Basic Core. (Revised by Hendrix, Laborn J.) Stillwater, Oklahoma: The Associated General Contractors of America and Oklahoma State Department of Vocational and Technical Education. 1984.

Turcotte, Raymond J. Bricklaying Curriculum: Principles of Bricklaying. (Revised by Hendrix, Laborn J.) Stillwater, Oklahoma: The Associated General Contractors of America and Oklahoma State Department of Vocational and Technical Education. 1984.

Turcotte, Raymond J. Bricklaying Curriculum: Advanced Bricklaying Techniques. (Revised by Hendrix, Laborn J.) Stillwater, Oklahoma: The Associated General Contractors of America and Oklahoma State Department of Vocational and Technical Education. 1984.

Evaluation and Suggested Minimum Performance Standards:

Objective 1: The student will match four terms associated with stonemasonry.
Objective 2: The student will list three reasons for using rough stone.
Objective 3: The student will list two types of rough stone.

*Indicates core/essential objectives

Performance Record: Place a check by each objective the student achieved:

_____ 1. Matched terms associated with stonemasonry.
_____ 2. Listed reasons for using rough stone.
_____ 3. Listed types of rough stone.

*Indicates core/essential objectives

BRICK, BLOCK, AND STONEMASONRY

STUDENT PERFORMANCE RECORD

BRICK, BLOCK, AND STONEMASONRY I

Student: _____

This record is provided as an alternative to the student performance records at the end of each unit. It can be duplicated for each student and serve as a cumulative record of competencies achieved in the course.

Place a check by each objective the student achieved; you may wish to note the date that the student achieved the objective.

C = Core competencies

_____ C1. Identified terms and definitions associated with masonry.
_____ C2. Identified characteristics of a good bricklayer.
_____ C3. Identified major skills involved in bricklaying.
_____ 4. Identified student organizations related to bricklaying.
_____ C5. Matched terms associated with safety to their correct definitions.
_____ C6. Identified personal safety rules.
_____ C7. Identified correct procedures for lifting heavy objects.
_____ C8. Identified reasons for practicing job safety.
_____ C9. Lifted a heavy object using the correct procedure.
_____ C10. Matched terms associated with hand tools to their correct definitions.
_____ C11. Distinguished between modular spacing rule and standard brick spacing rule.
_____ C12. Identified basic tools and proper use of each.
_____ C13. Identified and described the correct way to hold a brick trowel.
_____ C14. Measured, marked, and cut brick and block to specifications.
_____ C15. Listed basic rules concerning care of the level.
_____ C16. Used a framing square to lay out a wall corner to specifications.
_____ 17. Matched terms associated with masonry units to their correct definitions.
_____ 18. Named types of brick.
_____ 19. Labeled parts of a brick.
_____ C20. Identified brick positions as they appear in a wall.
_____ C21. Laid out a brick wall using dry bond method to specifications.
_____ 22. Matched terms associated with mortar to their correct definitions.
_____ 23. Listed ingredients used in mortar.
_____ C24. Listed factors to consider when mixing mortar.
_____ C25. Listed purposes of mortar.
_____ C26. Listed factors that affect mortar consistency.
_____ C27. Arranged in order steps used to mix mortar by hand.

_____C28. Arranged in order steps for using a mechanical mixer to mix mortar.
_____C29. Mixed a batch of mortar by hand to specifications.
_____C30. Mixed a batch of mortar using a mechanical mixer to specifications.
_____C31. Spread mortar to specifications.
_____C32. Matched terms associated with wall layout to their correct definitions.
_____C33. Listed purposes of wall layout.
_____C34. Listed in order the procedures for laying out a wall.
_____ 35. Listed purposes of bonds.
_____ 36. Listed types of wall bonds.
_____C37. Laid out a wall using the dry bond method to specifications.
_____C38. Identified types of leads.
_____C39. Built a lead to specifications.
_____C40. Laid up a wall between established leads to specifications.

BRICK, BLOCK, AND STONEMASONRY II

Student: _____

This record is provided as an alternative to the student performance records at the end of each unit. It can be duplicated for each student and serve as a cumulative record of competencies achieved in the course.

Place a check by each objective the student achieved; you may wish to note the date that the student achieved the objective.

C = Core competencies

_____ C1. Matched terms associated with safety.
_____ C2. Identified job safety rules.
_____ C3. Identified correct procedures for lifting heavy objects.
_____ C4. Matched terms associated with power tools to their correct definitions.
_____ C5. Identified power tools.
_____ C6. Identified parts of the masonry saw.
_____ C7. Identified types of cutting blades used on masonry saws.
_____ C8. Listed factors in caring for the masonry saw.
_____ C9. Listed safety rules for operating the masonry saw.
_____C10. Measured and cut bricks and blocks with the masonry saw to specifications.
_____ 11. Listed miscellaneous equipment related to bricklaying.
_____ 12. Listed types of scaffolds.
_____C13. Listed parts of a stationary scaffold.
_____C14. Listed safety rules pertaining to scaffolds.
_____C15. Erected a scaffold to specifications.
_____C16 Matched terms associated with wall layout.
_____C17. Distinguished between load-bearing and non-load-bearing walls.
_____ 18. Stated the purpose of through-wall bonding.
_____ 19. Listed types of through-wall bonding.
_____C20. Listed the purposes of brick and block leads.
_____C21. Listed methods of layout.
_____C22. Built a block lead to specifications.
_____C23. Laid up a block wall using steel tape bonding to specifications.
_____C24. Matched terms associated with anchors and reinforcement to their correct definitions.
_____C25. Listed types of anchors and reinforcement used with masonry units.
_____C26. Listed reasons for using anchors and reinforcement in a masonry wall.
_____C27. Listed advantages of metal ties.
_____C28. Described placement for metal ties.
_____C29. Installed wall ties horizontally and vertically to specifications.

_____C30. Installed joint reinforcement in block wall to specifications.
_____C31. Matched terms associated with plan reading to their correct definitions.
_____C32. Labeled types of lines included in the alphabet of lines.
_____ 33. Matched types of lines to their correct descriptions.
_____C34. Labeled drawing symbols.
_____C35. Matched abbreviations commonly used on plans to their correct names.
_____C36. Selected from a list common scales to which plans are drawn.
_____C37. Matched terms associated with estimating to their correct definitions.
_____ 38. Listed rule-of-thumb guidelines used by the brick-layer when estimating materials.
_____C39. Estimated material for a specific brick job to specifications.
_____C40. Estimated material for a specific block job to specifications.
_____ 41. Matched terms associated with stonemasonry.
_____ 42. Listed reasons for using rough stone.
_____ 43. Listed types of rough stone.